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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/935,796

08/24/2001

Ming-Dou Ker

SUND 218

9041

23995 7590 03/18/2003

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EXAMINER

TRAN, MAI HUONG C

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 03/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/935,796

Applicant(s)

KER ET AL.

Examiner

Mai-Huong Tran

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U. S. C. § 102 (b) as being anticipated by U.S. Patent No. 5,982,042 to Nakamura.

Regarding to claim 1, Nakamura discloses a bonding pad structure comprising a first pad 2; and at least one second pad 3 coupled with the first pad 2 as set forth in col. 4, lines 40-59 and fig. 8.

Regarding to claim 2, the bonding pad structure, wherein the first pad is coupled with the second pad by a connecting wire (col. 4, lines 50-53).

Regarding to claim 3, the bonding pad structure, wherein the arrangement of the corresponding second pad depends on the arrangement of testing probe in IC probing (col. 4, lines 60-62).

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Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-8 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 5,982,042 to Nakamura in view of Kudou (6,303,948) and further in view of the remark.

Regarding to claim 4, Nakamura discloses the claimed invention except for the bonding pad structure, wherein the first pad layout and the second pad layout are arranged in linear. Kudou teaches the first pad layout and the second pad layout are arranged in linear (fig. 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the first pad layout and the second pad layout arranged in linear, as taught by Kudou in order to cope with reductions in chip size, increases in the number of pins of a package, and reductions in the pitch of the pads (col. 6, lines 2-4).

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Regarding to claim 5, Nakamura discloses the claimed invention except for the bonding pad structure, wherein the first pad layout and the second pad layout are arranged in staggered. Kudou teaches the first pad layout and the second pad layout are arranged in staggered (figs. 13 and 14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the first pad layout and the second pad layout arranged in staggered, as taught by Kudou in order to cope with reductions in chip size, increases in the number of pins of a package, and reductions in the pitch of the pads (col. 6, lines 2-4).

Regarding to claim 6, Nakamura in view of Kudou discloses the claimed invention except for the bonding pad structure, wherein the first pad layout is arranged in staggered and the second pad layout is arranged in linear.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the first pad layout arranged in staggered and the second pad layout arranged in linear since it was known in the art that the first pad layout is arranged in staggered and the second pad layout is arranged in linear.

Regarding to claim 7, Nakamura in view of Kudou discloses the claimed invention except for the bonding pad structure, wherein the first pad comprises a bump ball.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the first pad comprised a bump ball since it was known in the art that the first pad comprised a bump ball.

Regarding to claim 8, Nakamura in view of Kudou discloses the claimed invention except for the bonding pad structure applied to a flip chip.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the bonding pad structure applied to a flip chip since it was known in the art that the bonding pad structure applied to a flip chip.

Conclusion

Any inquiry concerning this communication on earlier communications from the examiner should be directed to Mai-Huong Tran, (703) 305-1958. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM. The examiner's supervisor, David Nelms can be reached on (703) 308-4910.

The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7724. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Mai-Huong Tran


HOAI HO
PRIMARY EXAMINER